

## Product Data Sheet

Product Name: Hetacillin potassium (Potassium hetacillin)

Cat. No.: GC32281

### Chemical Properties

Cas. No. 5321-32-4

SMILES O=C([C@@H](C(C)(C)S[C@]1([H])[C@@H]2N(C(C)(C)N[C@@H]3C4=CC=CC=C4)C3=O)N1C2=O)[O-].[K+]

Formula C<sub>19</sub>H<sub>22</sub>KN<sub>3</sub>O<sub>4</sub>S M.Wt 427.56

Solubility Soluble in DMSO Storage Store at -20°C

General tips For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.

Structure

### Background

Hetacillin is a prodrug form of the broad-spectrum antibiotic ampicillin.<sup>1</sup> It is converted to ampicillin *via* hydrolysis. Hetacillin is active against several bacteria, including *E. coli*, *S. typhimurium*, *S. flexneri*, *H. influenzae*, and *S. pneumoniae* (MICs = 2.5, 1.25, 2.5, 0.5, and 0.05 µg/ml, respectively). Intramammary administration of hetacillin increases the cure rate of bacterial infections in dairy cows.<sup>2</sup> Formulations containing hetacillin have been used in the treatment of bovine mastitis.

1.Sutherland, R., and Robinson, O.P.W.Laboratory and pharmacological studies in man with hetacillin and ampicillinBr. Med. J.2(5555)804-808(1967) 2.Vasquez, A.K., Nydam, D.V., Capel, M.B., et al.Randomized noninferiority trial comparing 2 commercial intramammary antibiotics for the treatment of nonsevere clinical mastitis in dairy cowsJ. Dairy Sci.99(10)8267-8281(2016)

**Caution: Product has not been fully validated for medical applications. For research use only.**

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